

Remarks

In view of the above amendments and the following remarks, reconsideration of the objection and rejections and further examination are requested.

The specification and abstract have been reviewed and revised to make a number of editorial revisions thereto. Due to the number of changes involved, a substitute specification and abstract including the revisions have been prepared and are submitted herewith. No new matter has been added. Also submitted herewith is a marked-up copy of the specification and abstract indicating the changes incorporated therein.

Figures 1 and 2 have been objected to as not being labeled as "Prior Art." Replacement Figures 1 and 2 labeled as "Prior Art" are submitted herewith. Further, a replacement Figure 21 changing the word "Traverse" to "Motor" in step S202 is also submitted herewith. No new matter has been added by these revisions. As a result, withdrawal of the objection to the drawings is respectfully requested.

Claim 14 has been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for the use of the word "outside." Claim 14 has been amended so as to remove this word. As a result, withdrawal of the rejection under 35 U.S.C. §112, second paragraph, is respectfully requested.

Claims 26-29 have been rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Claim 26 has been amended so as to recite that the program is recorded on a computer readable medium. As a result, withdrawal of the rejection under 35 U.S.C. §101 is respectfully requested.

Claims 1-4, 9-23 and 25 have been rejected under 35 U.S.C. §102(b) as being anticipated by Furukawa (US 6,172,946). Claims 5-8 and 25 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Furukawa in view of Nomura (US 6,298,024).

Claims 1, 22 and 26 have been amended so as to further distinguish the present invention, as recited therein, from the references relied upon in the above-mentioned rejections.

Further, claims 5, 24 and 28 have been canceled without prejudice or disclaimer to the subject matter contained therein. In light of the cancellation of claim 5, claims 6-8 have been amended so as to depend from claim 1 instead of claim 5.

It is also noted that new claims 30 and 31 have been added.

In addition, claims 1-4, 6-23, 25-27 and 29 have been amended to make a number of editorial revisions thereto. These revisions have been made to place the claims in better U.S. form. None of these amendments have been made to narrow the scope of protection of the claims, or to address issues related to patentability, and therefore, these amendments should not be construed as limiting the scope of equivalents of the claimed features offered by the Doctrine of Equivalents.

Claim 1 is patentable over the combination of Furukawa and Nomura, since claim 1 recites an optical disc apparatus including, in part, a moving time control unit operable to control at least one of a rotation unit and a moving unit so as to prevent a linear velocity detected by a linear velocity detection unit from decreasing to a permissible linear velocity or below, when the moving unit moves a spot where an optical beam is irradiated on an optical disc, and a type distinction unit operable to distinguish a type of the optical disc to be irradiated by the optical beam, the type being classified based on a recording sensitivity to a predetermined laser wavelength, wherein the moving time control unit is operable to change the permissible linear velocity according to the type of the optical disc distinguished by the type distinction unit. The combination of Furukawa and Nomura fails to disclose or suggest these features of claim 1.

Furukawa discloses an optical recording/reading device including a motor 2 for rotating an optical recording medium 1, an optical head 6 for irradiating an optical beam 8 on the optical recording medium 1, a transfer board 11 for moving the optical head 6 in a linear direction, and a controller 5 for controlling the overall operation of the device. During a seek operation, the controller 5 controls the transfer board 11 and the motor 2. The controller 5 controls the transfer board 11 to move the optical head 6 such that the optical beam 8 is at a designated location on the optical recording medium 1. Further, controller 5 controls the motor 2 to maintain the relative linear velocity between the optical beam 8 and the optical recording medium 1 at least at a predetermined value. That is, the controller 5 controls the motor 2 to increase its rotation rate when the optical beam 8 seeks from an outer periphery to an inner periphery of the optical recording medium 1 and controls the motor 2 to decrease its rotation rate when the optical beam 8 seeks from the inner periphery to the outer periphery of the optical recording medium 1. (See column 6, lines 13-39 and Figure 1).

As discussed above, the controller 5 of Furukawa does control the motor 2 such that the rotation rate of the motor 2 does not decrease below a predetermined value. However, as

admitted in the Office Action, Furukawa fails to disclose or suggest any device that is capable of distinguish a type of the optical recording medium 1 or that the predetermined value is changed according to the type of the optical recording medium 1. As a result, Nomura is relied upon as disclosing these features.

Regarding Nomura, it discloses an optical disc device including a disc type identification section 11 that identifies a type of an optical disc 1 based on an amplitude indicating signal RFAMP which corresponds to the amplitude of an RF signal read from the optical disc 1. The disc type identification section 11 includes a peak detector 30 that detects a maximum voltage V-peak of the RFAMP signal and a bottom detector 31 that detects a minimum voltage V-bottom of the RFAMP signal. The disc type identification section 11 also includes a subtractor 32 that subtracts V-bottom from V-peak and a comparator 33 that compares the output from the subtractor 32 with a comparative voltage source 34 and outputs a result of the comparison which indicates the type of the optical disc 1. The disc type identification section 11 is able to determine the type of the optical disc 1 because different types of optical discs have different recording densities in the radial direction and the different recording densities alter the RF signal which is input to the disc type identification section 11 as the RFAMP signal. (See column 5, lines 49-56; column 6, lines 47-67; column 7, lines 30-34; and Figures 1 and 3).

As discussed above, the disc type identification section 11 determines the type of the optical disc 1 based on the recording density of the optical disc 1. On the other hand, the type distinction unit recited in claim 1 is operable to distinguish the type of the optical disc by classifying the type based on a recording sensitivity to a predetermined laser wavelength. Clearly, determining the type of an optical disc based on recording density of the optical disc is different than determining the type of an optical disc based on a recording sensitivity to a predetermined laser wavelength. Therefore, the disc type identification section 11 of Nomura does not correspond to the claimed type distinction unit. As a result, Nomura does not address the deficiencies of Furukawa, and the combination of Furukawa and Nomura fails to render claim 1 obvious.

As for claims 22 and 26, they are patentable over the combination of Furukawa and Nomura for reasons similar to those set forth above in support of claim 1. That is, claims 22 and 26 each recite, in part, a type distinction operation of distinguishing a type of a optical disc to be irradiated by an optical beam, the type being classified based on a recording sensitivity to a

predetermined laser wavelength, wherein a moving time control operation includes changing a permissible linear velocity according to the type of the optical disc distinguished in the type distinction operation, which features are not disclosed or suggested by the references.

In addition to being patentable over the references as set forth above in support of claim 1, claim 7 further recites that the optical disc apparatus includes a focus error output unit operable to output a focus error signal indicating a distance between a focus of the optical beam and the optical disc, wherein the type distinction unit is operable to distinguish the type of the optical disc based on the focus error signal outputted by the focus error output unit. The combination of Furukawa and Nomura also fails to disclose or suggest these features of claim 7.

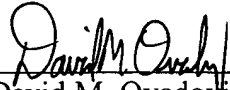
As discussed above, Nomura discloses that the disc type identification section 11 determines the type of the optical disc 1 based on the recording density of the optical disc 1. Therefore, it is clear that the disc type identification section 11 does not use a focus error signal indicating a distance between a focus of an optical beam and the optical disc 1 to determine the type of the optical disc 1. As a result, the combination of Furukawa and Nomura also fails to disclose or suggest this feature of claim 7.

Because of the above-mentioned distinctions, it is believed clear that claims 1-4, 6-23, 25-27 and 29-31 are allowable over the references relied upon in the rejections. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of invention would not have been motivated to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 1-4, 6-23, 25-27 and 29-31. Therefore, it is submitted that claims 1-4, 6-23, 25-27 and 29-31 are clearly allowable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

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July 11, 2006